

posteriorly by a quite definite route and rate of extension. The ventral moult is completed before the dorsal. This pelage is somewhat longer and coarser, with a distinct color effect dorsally varying from umber to sepia, and due to increased yellow pigment in the intermediate band of the hair.

The young mice were etherized and the hair plucked out over certain areas, without injuring the skin. Where the juvenal hair was removed it was replaced directly by the post-juvenal. The artificial removal of hair modified the normal sequence of appearance of post-juvenal pelage over the body quite definitely. Usually this modification was confined to the regions actually depilated; but not always. It sometimes influenced the succession at a little distance.

A precocious appearance of the post-juvenal pelage may be induced by removing the juvenile hair.

Restoration takes place in removed adult pelage, and occurs irrespective of seasons. It is restored somewhat more rapidly when hair is plucked out than when it is merely cut. Light appears to have no influence in developing the differences of color in dorsal and ventral surfaces.

EXPERIMENTS ON PROTECTIVE COLORATION

Young (Jour. Exp. Zool. May 1916) reports experiments in which crows, hawks, owls, chickens, prairie chickens, grackles, kingbirds and martins are used as preys, and amphibians, small mammals and insects as prey. The work was done in cages, and varying backgrounds, which contrasted with and concealed the prey were used. He concludes; (1) that protective resemblance is effective in protecting motionless animals from attacks by caged birds; and (2) stillness is probably a more important factor than color in protecting animals from their foes.

COLOR DISCRIMINATION AND ASSOCIATION IN FISHES

White (Jour. Exp. Zool., Feb. 20, 1919) concludes from experiments on mudminnows and sticklebacks that they were able to discriminate, in differing degrees, such colors as red and green, and that the discrimination is based on wave length and not upon intensity. Their power of discrimination is less than that of man. Effective associations between certain colors and behavior were shown by their learning to leap out of the water for food announced by various colors. In a similar way associated actions were shown